

FIG. 2 50 UDP **SNMP DHCP TFTP MGMT** 62 64 66 68 **TRANSPORT UDP LAYER** 60 **NETWORK ICMP** IP **LAYER** 56 58 **DATA LINK MAC LAYER** 54 **PHYSICAL** RF **LAYER INTERFACE 52 DOWNSTREAM** /UPSTREAM

## FIG. 3

#### **REQUEST MESSAGE**

80

## FIG. 4

#### **MAP MESSAGE**

MAC MANAGEMENT MESSAGE HEADER 82 **NUMBER OF UPSTREAM UCD COUNT CHANNEL ID ELEMENTS RESERVED** 86 84 88 **ALLOC START TIME** 90 **ACK TIME** 92 **RANGING RANGING** DATA **DATA BACKOFF BACKOFF BACKOFF BACKOFF START 94 END 96** START 97 **END 99 MAP INFORMATION ELEMENTS** 100

**FIG. 5** 

	MAP I	NFORMATION ELE	MENTS 100
FIRST INTERVAL	SID <u>76</u>	IUC <u>102</u>	OFFSET 104
SECOND INTERVAL	SID	IUC	OFFSET
	<b>~</b>		
LAST INTERVAL	SID	IUC	OFFSET

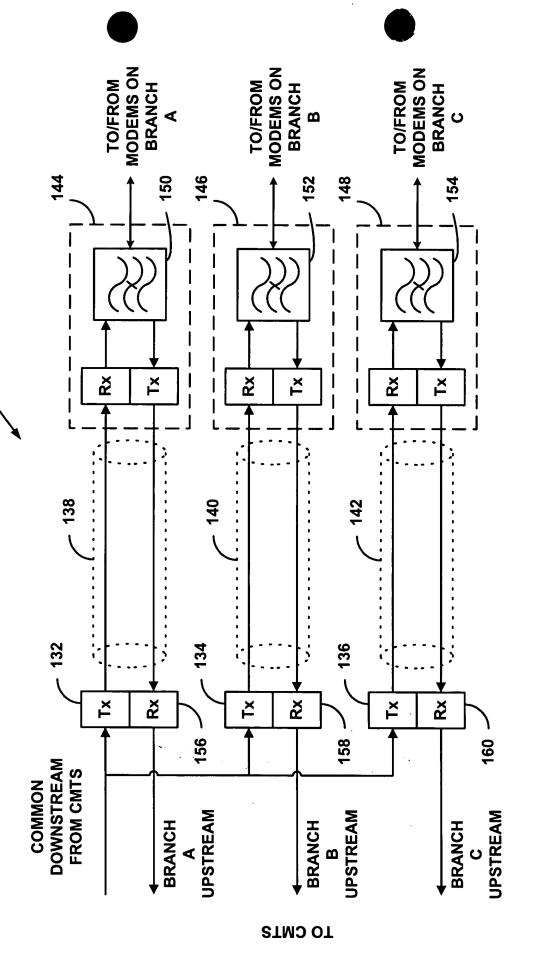
# **FIG.** 6

### **UPSTREAM CHANNEL DESCRIPTOR**

110

	MAC MANAGEMENT MESSAGE HEADER  112						
	UPSTREAM CHANNEL ID 114	CONFIGURATION CHANGE COUNT 116	MINI-SLOT SIZE 118	DOWNSTREAM CHANNEL ID 120			
	TLV-ENCODED CHANNEL DESCRIPTOR  122						
^	TLV-ENCODED BURST DESCRIPTORS  124						

130



# **FIG. 8**

170

### **RANGING REQUEST MESSAGE**

MAC MANAGEMENT MESSAGE HEADER  172				
SID <u>76</u>	DOWNSTREAM CHANNEL ID 174	PENDING TILL COMPLETE <u>176</u>		

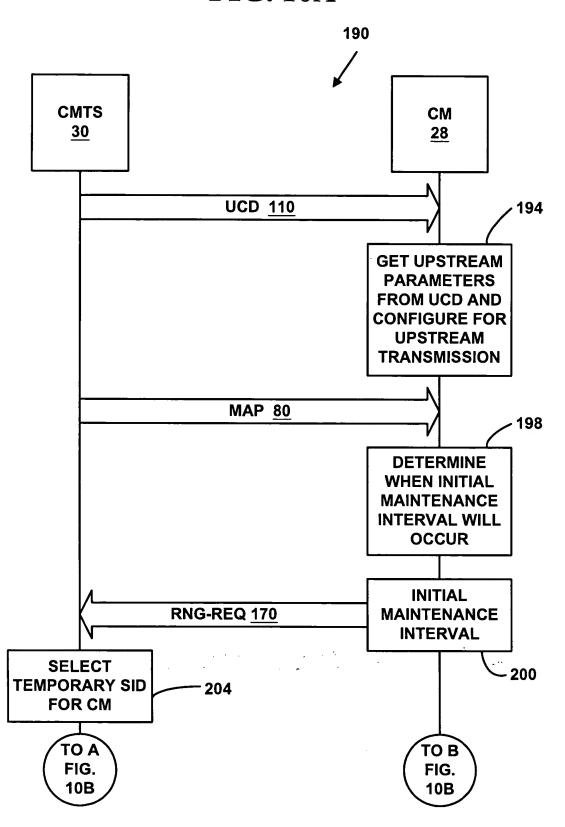
FIG. 9

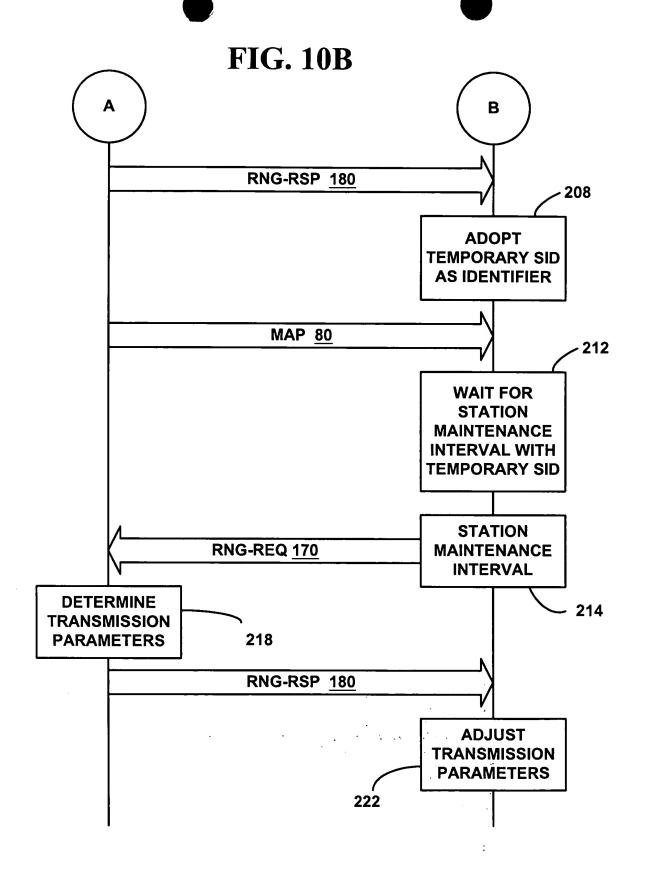
180

### **RANGING RESPONSE MESSAGE**

	MAC MANAGE	MENT MESSAGE HEAD 182	DER
	SID <u>76</u>	UPSTREAM CHANNEL ID 184	
•	TLV ENCODED RANGING INFORMATION 186		ION

**FIG. 10A** 





**FIG. 11** 

